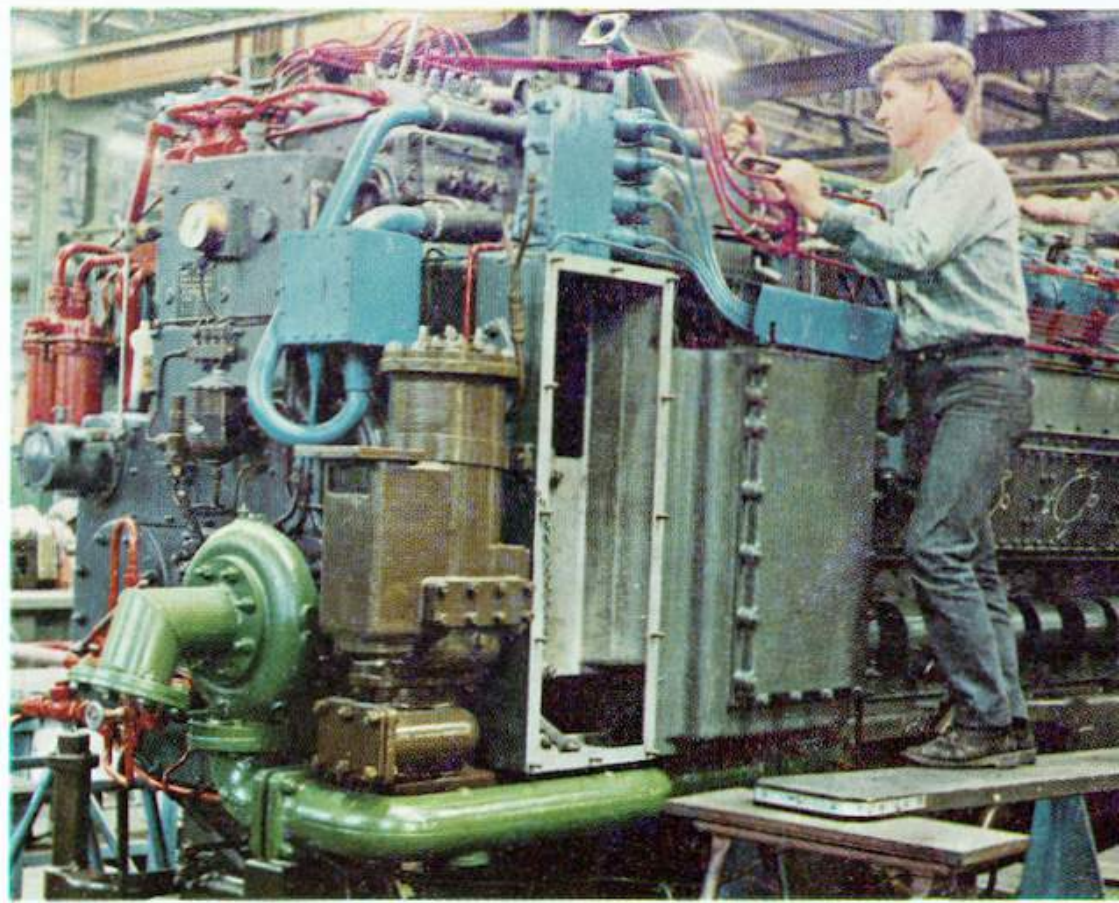




Midland

Westrail Workshops Exhibition

12th November 1975



WESTERN AUSTRALIAN GOVERNMENT RAILWAYS



Midland

Westrail Workshops Exhibition

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Order of Proceedings

(See map in centre fold)

6.30 p.m. Musical entertainment.

7.00 p.m. Exhibition opens

Welcome by the Assistant Chief Mechanical Engineer, Mr. E. K. Arblasler, A.M.I.E.

Introduction by the Commissioner of Railways, Mr. R. J. Pascoe, F.C.I.T.

Address by the Hon. Minister for Transport, Mr. R. J. O'Connor, M.L.A.

7.20 p.m. Inspection tour of Workshops and viewing of work demonstrations. (see map and programme of demonstrations, page 3)

7.30 p.m. Light refreshments served in assembly area.

Showing of films throughout the evening.

PLEASE NOTE

As this inspection is taking place under artificial light, certain hazards exist and visitors are enjoined to exercise extreme care. There are established pathways and visitors are requested, for their own safety to keep to these pathways, although shorter routes may be evident. A recommended inspection route is shown on the plan contained in this brochure.

Inside some of the shops there are deep pits which must be avoided. When walking from one shop to another, visitors should be vigilant in avoiding objects which could cause them to trip.

As some of the demonstrations of work involve hot or ragged edged metals it is necessary to stand a reasonable distance away. Materials should not be handled.

To avoid congestion visitors are kindly requested to refrain from remaining at demonstration points for excessive periods.

Introduction

On behalf of Westrail, the management of these workshops welcomes you on this, the occasion of its first OPEN EXHIBITION NIGHT.

In the past, very successful evenings were held for the parents and friends of apprentices to show the scope of the training available.

Tonight, as a contrast, we invite you, the public, to enjoy a casual walk through these works, comprising 167 acres, and view first hand, the diversity of work being undertaken;—our machinery and equipment; some being unique in this State. The journey will take you through most sections, and past some twenty-four working demonstrations. Westrail Workshops are prepared to accept any challenging task, if it can assist Western Australia in its progress and reputation. As an example, the growing emphasis upon the transportation of oils and minerals, has encouraged original wagon design to the extent that, in aluminium rollingstock design and construction, these works compete, more than favourably, with any in the world.

Many of the State's finest artisans have received their basic training here, some 400 apprentices being indentured with the works at any one time and we are proud of the general high regard in the community, for the skill of tradesmen, trained at the Westrail Workshops.

After 71 years in operation, we are pleased to place the Westrail Workshops at your disposal for the first time—and bid you welcome.

Demonstrations

Demonstrations of work have been arranged in the following shops, and will be seen during your tour of inspection.

LOCATION	DEMONSTRATION	DEMO. NO.
Wood Mill	Cutting Aluminium for new wagons	1
Flanging Shop	1000 Ton Press	2
Flanging Shop	Profile Cutting of steel plate	3
Flanging Shop	Brake Press bending metal plate	4
Flanging Shop	Boom Welder	5
Boiler Shop	XF Wagon Construction Jig	6
Blacksmith Shop	Drop Stamp	7
Blacksmith Shop	Dog Spike Machine	8
Blacksmith Shop	Metal Worker cutting metal bars	9
Blacksmith Shop	Spring Making for rollingstock	10
Machine Shop	Crankshaft Grinder	11
Blacksmith Shop	Heavy Forging Hammer	12
Machine Shop	New Wheel Lathe	13
Machine Shop	Planer	14
Machine Shop	Horizontal Borer	15
Fitting Shop	Assembly of Bogie for a locomotive	16
Fitting Shop	Locomotive Lifting by overhead crane	17
Diesel Shed	Locomotive under test	18
Fitting Shop	Railcar on Deep Pit	19
Power House	Compressor	20
Foundry	Core Making Machine	21
Foundry	Ribbon Flow Sand Machine	22
Foundry	Electric Furnace and Casting	23
Tool Room	Laser Demonstration	24

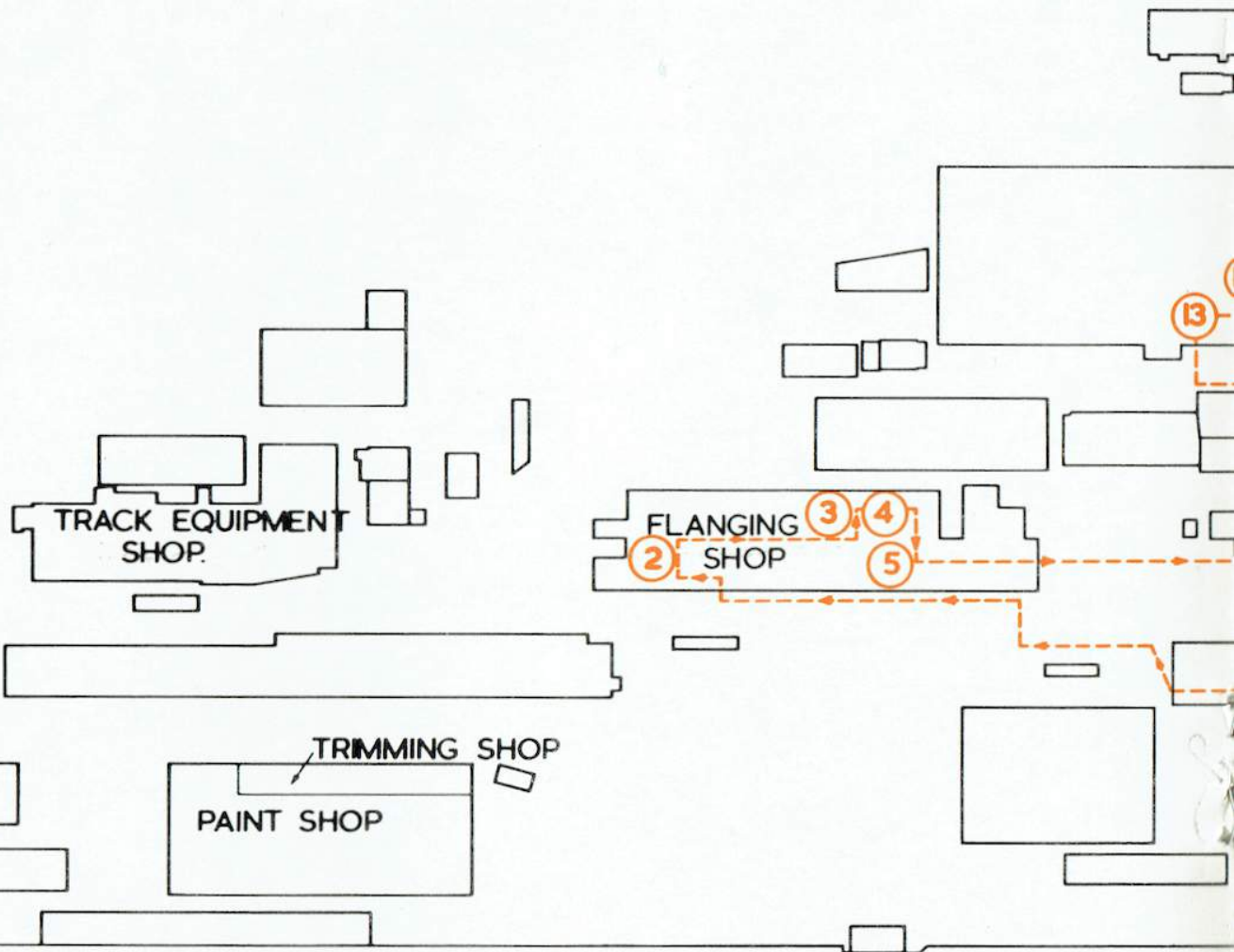
The locations of these demonstrations with numbers corresponding to those shown above have been indicated on the plan published in the centre of this booklet.

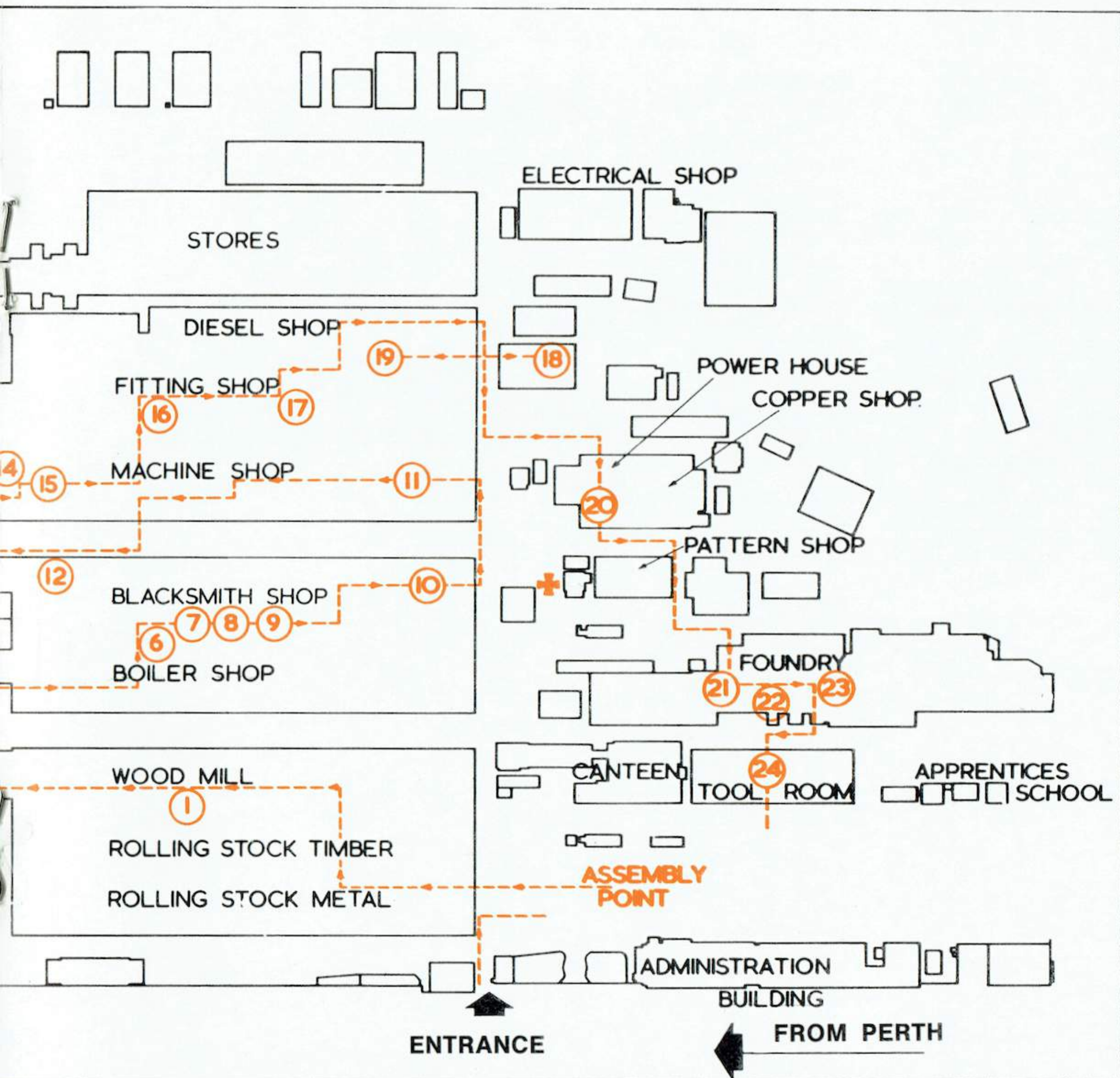
PLAN OF MIDLAND WORKSHOPS

DEMONSTRATION POINTS SHOWN THUS ①

RECOMMENDED PATHWAY - - -

AMBULANCE ROOM +





Some of the Projects Completed

Largest Steel Casting

In mid 1974 the largest steel casting ever attempted at the workshops heralded the beginning of a highly successful project and one of the most specialised ever undertaken here. The project involved the production of cast steel bogies to convert RA class locomotives from narrow to standard gauge for operation on the Kalgoorlie-Esperance line.

The bogie was designed by our drawing office and transformed into a 3.7 tonne casting in the foundry.

The mould was formed from thirty boxes and the actual layout of the mould was designed to permit the pouring of molten steel from three ladles simultaneously.



Modern Aluminium Tankers

Early this year, the last of a series of 12 aluminium rail tankers was completed, eleven (11) constructed for Shell Oil Co. and one (1) for Esso Petroleum.

The rail tankers were designed principally for transporting petroleum products on the newly-opened Kalgoorlie to Esperance standard gauge line.

Major features in construction included extensive use of aluminium alloy, resulting in a tanker 10 tonnes lighter than its steel counterpart allowing an extra 12000 litre payload, bringing the total capacity up to an average 90000 litres.

The tank shell has a fish belly configuration and the design also has complete safety in mind. 45 cm wide walkways and ladders and rungs are treated with anti-skid material to facilitate loading operations.



in the past 12 months

Dual Sectioned Gantry Crane

Simple mechanics was the thought in mind when these works designed and built a dual-sectioned rail gantry crane this year, the first in Western Australia. The crane can be dismantled and erected for mobility to any point in the system. The gantry can be controlled by one man with limited knowledge of mechanics.

The gantry crane is 10 metres high and can handle the largest of the present Westrail containers. Its twin hooks have been designed to lift loads of 20 tonnes each. It is presently situated at Meekatharra handling ammonium nitrate, which is used with other chemicals to form a blasting agent at the Northern iron ore deposits.



Motor Car Transporters for N.S.W.

The most recent achievement came to fruition in July when the 100th BNX standard gauge motor car transporter was delivered to the Department of Transport of New South Wales. The 100 carriers were built in the Westrail workshops and delivered in the space of less than 12 months.

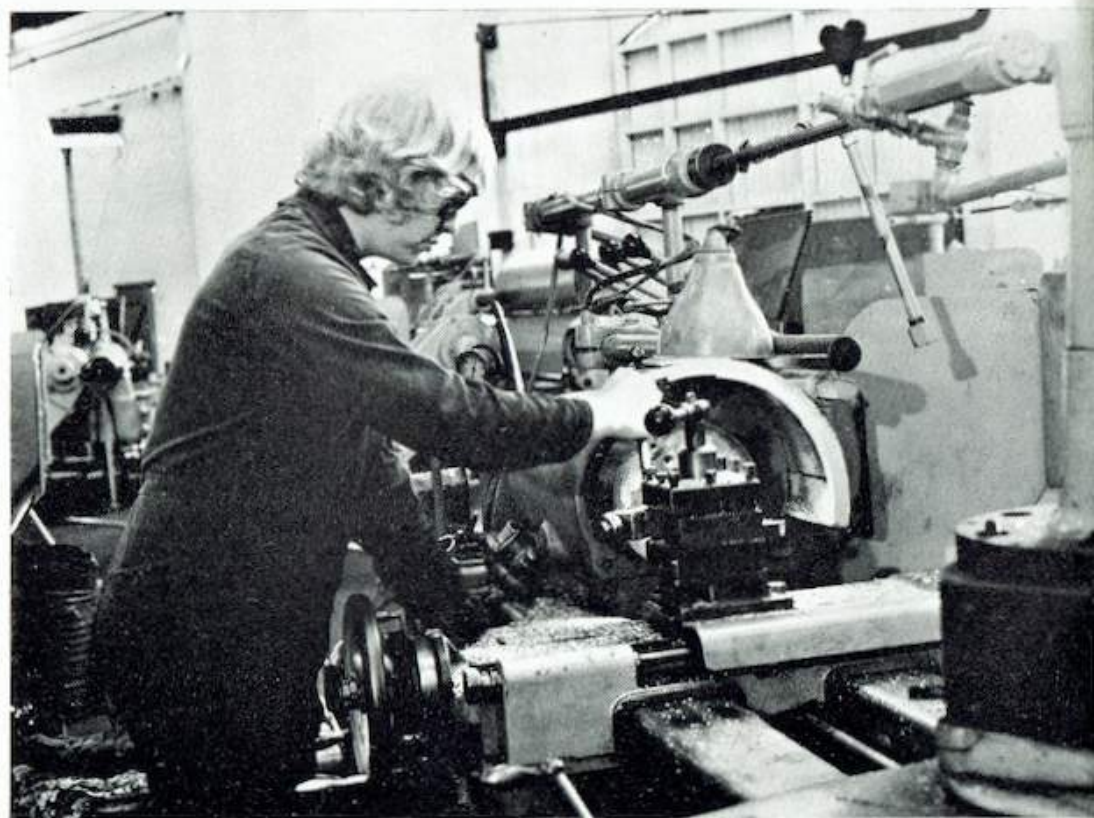
These wagons, which are interchangeable on Australian railway systems, were built to an advance design with rubber-covered pillars and hand rails to prevent damage to automobile doors.



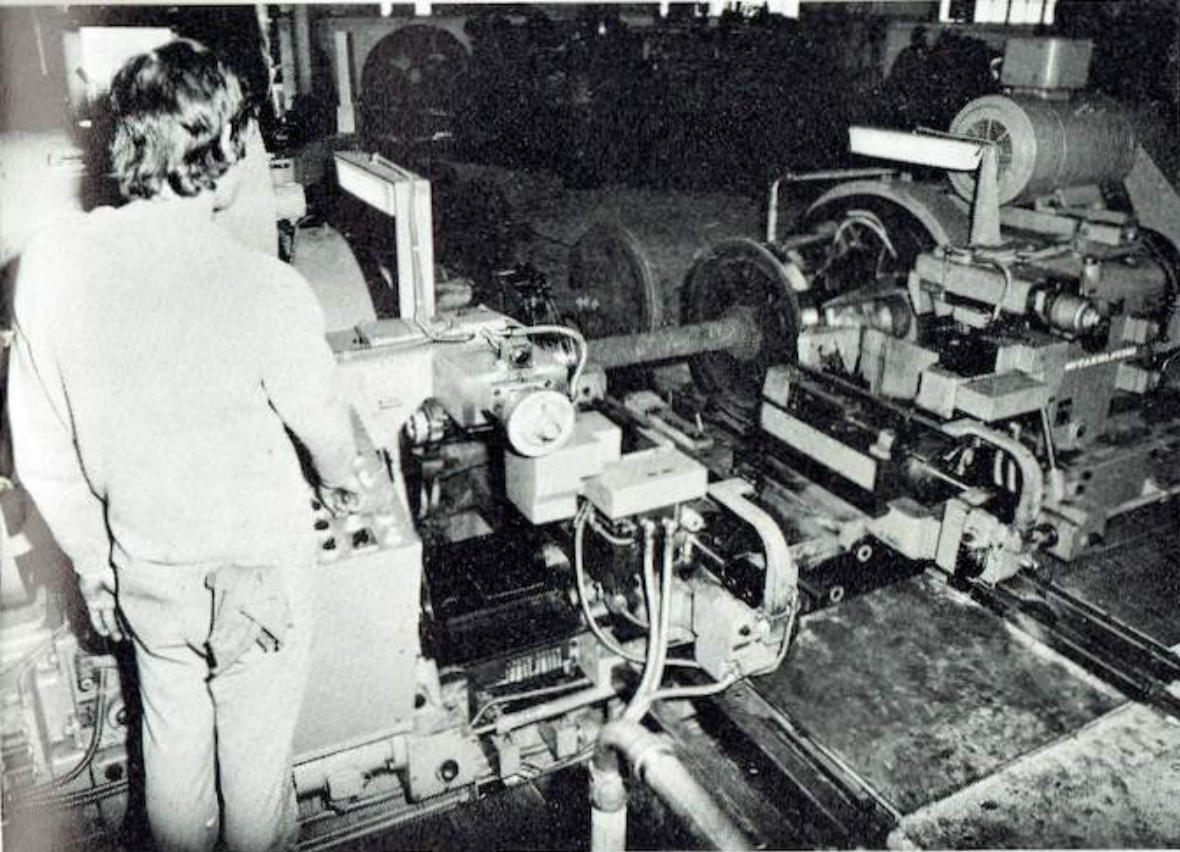


Electronic Circuit Testing

TYPICAL WORKSHOPS OPERATIONS

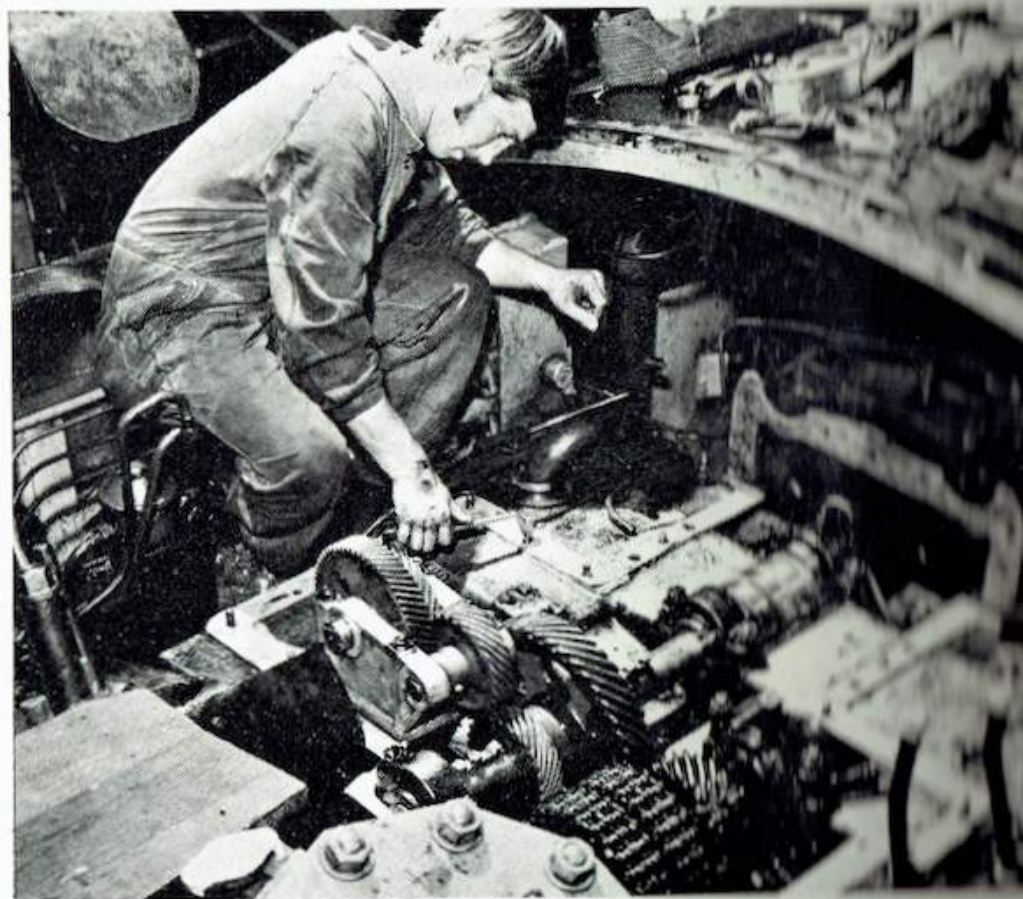


Apprentice Turner At Work



New Lathe for Profiling Wheels

*"If it's made in Midland
it's good." is the proud motto
of the Westrail Workshops*



Diesel Engine Gear Maintenance

SAFETY

A full-time Safety Officer is employed to make recommendations for improving safety measures and minimising hazards likely to cause injury and to investigate accidents to employees. Meetings, attended by both Departmental and employees' representatives, are held in the various shops to deal with local matters of safety. Industrial safety on an overall basis is controlled by a central committee.

FIRST AID

A fully equipped Ambulance Room, manned by a qualified male attendant, is provided in a central position. Qualified members of St. John Ambulance also are available in the various Shops to render "First Aid" as required. Classes are conducted to provide instruction.

WELFARE

A constituted committee, representing the various sections of the workshops, meets regularly to discuss welfare matters which are usually outside the scope of the industrial Awards applicable to employees. Where necessary, matters are referred for the attention of management.

AMENITIES

The workshops canteen provides morning tea for employees, hot and cold lunches served in a dining room as well as take-away lunches, and a store which retails foodstuffs, confectionery, soft drinks, cigarettes, and other sundry items.

A library and a billiard room are available at the Railway Institute which also conducts oral and correspondence classes in special subjects and fosters social and sporting activities.

CONCLUSION

The management hope that you will find the evening both informative and entertaining, and thank you for your attendance.